

GUIDELINES FOR SUBMISSION OF TURFGRASS SAMPLES

1. To diagnose turfgrass problems, we need **at least a 6" x 6" piece of the turf**, including the root system and soil. If using a golf course cup cutter, please send at least 2 plugs.
2. Collect samples from the border between healthy and diseased turf, so that 2/3 of the sample is diseased and 1/3 is healthy.
3. Wrap the soil and roots in aluminum foil to keep the soil from shaking loose during transit.
4. **DO NOT store or transport the samples in plastic bags.** Instead, place the samples in a cardboard box, and stuff it with newspaper or other packing material to hold the samples in place.
5. Download and print the Plant Disease and Insect Clinic sample submission form from the clinic website: <http://www.ces.ncsu.edu/depts/ent/clinic/Submit/submit.htm>
6. Please fill out the sample submission form **completely and legibly**. Describe the symptoms you are observing as accurately as possible. All of the information requested on the form is needed to make an accurate diagnosis.
7. **List all fertilizer, fungicide, herbicide, and insecticide applications made in the last 30 days.** Also, list any major cultural practices (aerification, topdressing, etc.) conducted in the last 30 days. These practices have a major impact on disease and insect development, and provide valuable clues that will help us make an accurate diagnosis.
8. **We now accept digital images along with physical samples.** Pictures of the symptoms from a distance of 6 feet or more are very useful for diagnosis of disease and insect problems. Close-up pictures, from a distance of less than 2 feet, are usually not helpful. Public users can send images that correspond to a physical sample via email to lee_butler@ncsu.edu. *CES agents* can log in using their Unity ID and send images at: <http://www.ces.ncsu.edu/depts/ent/clinic/UploadImages.htm>.
9. Send the sample and submission form to the Plant Disease and Insect Clinic by overnight mail or state courier using the following address:

Address for US mail, UPS and FedEx:

Plant Disease and Insect Clinic
Campus Box 7211
1227 Gardner Hall
100 Derieux Place
North Carolina State University
Raleigh, NC 27695-721

State Courier Address

Plant Disease and Insect Clinic
Campus Box 7211 NCSU
Raleigh, NC
STATE COURIER: 53-61-21

Fee Structure:

\$100.00: All out-of-state samples
\$ 50.00: All in-state golf turf samples
\$ 20.00: All other in-state samples
\$ 10.00: In-state samples submitted by
Coop. Ext. Service, NCSU, NCDA
personnel and non-profit agencies
(Golf turf excluded)

***Make checks payable to NCSU**



TURFGRASS Sample Submission Form

NC State Turf Diagnostics Lab

PAYMENT: enclosed \$ _____ **OR** Voucher # _____ **OR** Bill to: Client Consultant County/NCDA

Office Use Only:
Clinic # _____ Date Rec'd ____/____/____
Cash _____ Check# _____ Amt. _____ No Charge _____
Email _____ Paper Mail _____ FAX _____ Other _____

North Carolina Cooperative Extension Service
Plant Disease and Insect Clinic
North Carolina State University
Campus Box 7211
1227 Gardner Hall, 100 Derieux Place
Raleigh, NC 27695-7211
<http://www.ncsu.edu/pdic>

CES Agent/NCDA Spec. _____ County _____ Email _____

CLIENT INFORMATION (Grower/Homeowner):

Last Name First Name Company

Address City State Zip County

E-mail: _____ Ph: (____) _____ Fax (____) _____

OTHER INFO (Consultant, PCO, Landscaper, etc.):

Last Name First Name Company

Address City State Zip County

E-mail: _____ Ph: (____) _____ Fax (____) _____

SITE INFORMATION

Turf Species _____ Variety _____ Month/Year Established ____/____
Establishment Method: seed sprigs sod If seed, indicate rate (lbs per 1000 sq ft) _____
If sod, purchased from where? _____
Use (check one): green tee fairway rough home lawn commercial landscape sod production
 other (please explain) _____
Mowing Type (check one): rotary reel flail Height (inches) _____ Frequency (per week) _____
Irrigation frequency (times per week) _____ Amount (inches) _____ Time of day _____

PROBLEM INFORMATION

Information Needed: Disease ID Insect ID Plant ID Control Information: Commercial Non-commercial
When did symptoms appear? _____ When was sample collected? _____
Describe the symptoms (check all that apply): blight dieback leaf spot greasy/water-soaked matted thin
 chlorotic/yellow wilted stunted other (please explain) _____
Describe the pattern of symptoms (check all that apply): spots circles patches rings irregular uniform strips
 other (please explain) _____
Describe the distribution of symptoms (check one): localized random widespread
Are the symptoms limited to any particular microclimate? (check all that apply): wet dry compacted high traffic
 excess thatch shade full sun low areas high areas slopes cleanup passes other _____



Clinic Sample #: _____

MANAGEMENT INFORMATION

Please list ALL fertilizer, fungicide, herbicide, and insecticide applications made in last 30 days:

Date	Product	Rate (per 1000 sq ft)	Date	Product	Rate (per 1000 sq ft)
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Please list any cultural practices (other than mowing, irrigation, and fertilization) performed in last 30 days:

Date	Description	Rate, size, etc.	Date	Description	Rate, size, etc.
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

CLINIC USE ONLY – do not write below this line

Sample condition (check all that apply): Soil on Foliage No roots No soil No foliage Inad. roots Inad. soil Inad. foliage Rotten Too dry Dead Mashed

Form (check all that apply): Illegible Incomplete No contact information No agent name Dirty/wet

Referral: Entomology Chemical injury Weed ID Plant ID Nematode assay Soil analysis Plant analysis

#1 _____ #2 _____ #3 _____ #4 _____ #5 _____

pH: pH: pH: pH: pH:

SS: SS: SS: SS: SS:

Diagnosis: